

Chapter 4

Pharmacy Utilization

Background

In this chapter, we report on pharmacy use among veterans with psychosis using VA treatment services during FY01, with a primary focus on antipsychotic medication use among patients with schizophrenia. Antipsychotic medications are an essential component of the treatment of patients with schizophrenia, with treatment guidelines recommending long-term use for patients having more than one episode of psychosis (American Psychiatric Association Work Group on Schizophrenia, 1997). This report summarizes the use of oral antipsychotics among 98,739 veterans with a schizophrenia or schizoaffective disorder (ICD-9 codes for 295.x, excluding 295.5) who had and one or more VA treatment contacts during FY01. If patients had more than one primary psychotic diagnosis noted during FY01 (e.g., a bipolar diagnosis during some treatment contacts and a schizophrenia diagnosis during other contacts) the diagnosis noted during the majority of contacts was used.

Percent of patients with any outpatient pharmacy fill/ and Percent receiving an oral antipsychotic fill

As would be expected from our selection criteria, (veterans with a psychotic diagnosis and treatment contact), the use of outpatient pharmacy services was very high. Fully 95% of all patients with a psychotic diagnosis and 95% of veterans with schizophrenia or schizoaffective disorder filled at least one outpatient pharmacy prescription during the year. Approximately 76% of veterans with schizophrenia filled at least one oral antipsychotic prescription during the year.

Because data from the VA Pharmacy Benefits Management group do not consistently include depot antipsychotic medications, we note that depot antipsychotics were not included in this summary. Previous work by SMITREC staff indicate that approximately 15-20% of veterans with schizophrenia receive depot antipsychotics (Valenstein, Copeland, Owen, Blow, & Visnic, 2001).

If 15-20% of veterans with schizophrenia did receive depot antipsychotics during FY01, then $\geq 91\%$ of all veterans with schizophrenia would have received some antipsychotic medication during the year. Thus, this first step of appropriate pharmacological management, the initiation of antipsychotic medications, appears to occur almost uniformly for VA patients with schizophrenia.

% Receiving Atypicals

Atypical antipsychotic medications are as efficacious as older conventional agents and have a more favorable side effect profile. However, their pharmacy acquisition costs are much higher than conventional antipsychotics. Consumer advocacy and professional organizations have emphasized the importance of ensuring access to these newer antipsychotic agents.

We report the overall percentage of patients who received atypical agents in FY01 and the percentages of patients who received each of the following atypical agents: clozapine, olanzapine, risperidone, and quetiapine. Ziprasidone received FDA approval in February, 2001, and we will include ziprasidone usage in the NPR FY02 report.

The percentage of veterans with schizophrenia who are being treated with the newer antipsychotics has increased dramatically over the last 3 years. In FY01, 77% of patients with schizophrenia receiving antipsychotic medications received an atypical agent, compared to 70% in FY00, and just 59% in FY99. Among bipolar patients who received antipsychotics in FY01, and even higher percentage (86%) received atypical agents.

Olanzapine and risperidone continued to be the most frequently used antipsychotic medications, with 40% of patients with schizophrenia receiving olanzapine and 36% receiving risperidone during FY01. (See Table 4A. Because some patients were exposed to more than one atypical agent during FY01, the percentages of patients exposed to the individual agents sum to more than 77%). The use of quetiapine has been increasing over the last three years among patients with schizophrenia, with 13% of patients now being treated with this agent compared to just 3% in FY99.

Although there remains considerable variation among VISNs in the use of atypical agents, overall, there appears to be reasonable levels of access to the newer antipsychotic agents. The use of atypical agents in the VA health system is similar to the use of these agents in other settings (Hermann et al., 2002; Vanelli, Burstein, & Cramer, 2001). The recent GAO report on antipsychotic use in the VA confirmed that VA psychiatrists believe they have reasonable levels of access to these newer medications. (VA Health Care: Implementation of Prescribing Guideline for Atypical Antipsychotic Drugs Generally Sound. GAO-02-579 April 29, 2002)

% Receiving Clozapine

Clozapine use deserves special scrutiny, as clozapine is the only antipsychotic agent that has been proven effective in patients with refractory schizophrenia. In FY 01, just 2.9% of veterans with schizophrenia received clozapine. Although the use of clozapine among patients with schizophrenia has shown a small increase (16%) over the last 3 years (from 2.5% of patients with schizophrenia in FY99 to 2.9% of patients with schizophrenia currently), this remains a surprisingly low rate of prescription, given that 20-25% of patients with schizophrenia are refractory to treatment with other agents. Clozapine use also continues to vary considerably across VISNs (by a factor of 6). Reasons for low overall use of clozapine and the variation in use across VISNs are unclear, but this clearly is an area meriting further research.

% Receiving Concurrent Treatment with Two or More Antipsychotics

While undoubtedly helpful for some patients, the effectiveness of concurrently prescribing two or more antipsychotic medications for patients with schizophrenia is not yet supported by solid research evidence. Patients receiving concurrent treatment with two antipsychotic medications may benefit from closer monitoring and the clinical community may benefit from systematic reporting of the results of these treatment trials.

Because patients may receive treatment with two different antipsychotics briefly when their antipsychotic medications are being switched and cross-tapered, our measure of concurrent treatment includes only those individuals receiving two different antipsychotics for more than 60 days. Such patients are more likely to have received deliberate concurrent treatment.

In FY01, 14% of patients with schizophrenia were receiving two antipsychotics concurrently, compared to 12% in FY00 and 11% in FY99 (an increase of 27% over the three years). This substantial rate of concurrent treatment raises the possibility that patients who are refractory to antipsychotic treatment may be receiving an “add-on” antipsychotic agent rather than a clozapine trial. Closer monitoring and examination of treatment pathways may be warranted.

Average # of Prescriptions and Medication Possession Ratio (MPR)

These measures assess the continuity of antipsychotic use among patients with schizophrenia. Interruptions in antipsychotic use increase the risk of relapse and rehospitalization among patients with schizophrenia; 50% to 75% of patients who discontinue antipsychotic medications will relapse within a year (Viguera, Baldessarini, Hegarty, van Kammen, & Tohen, 1997; Curson et al., 1985; Hogarty & Ulrich, 1977; Skinner & Holt, 1987).

We report the average number of antipsychotic prescriptions fills for patients with schizophrenia filling at least one antipsychotic prescription during FY01. We also report the average medication possession ratio (MPR) for patients receiving antipsychotic medication and the percent of patients who have MPRs <0.8, a commonly used cut-off for poor adherence.

The MPR is the ratio of the “number of days supply” of medication that a patient has received divided by the “number of days supply” that they should have received had they been taking medication as prescribed. An MPR of 1 or 100% indicates that the patient has received all the medication needed to take their antipsychotic medication as prescribed; whereas, a MPR of 0.5 or 50% indicates that the patient has received medication sufficient to take only half of the prescribed dose. If the MPR is greater than 1, patients have received more medication than required to take the prescribed dose. The MPR was calculated for the time period between the patient’s first antipsychotic

prescription and the end of the fiscal year or date of death. Days spent in institutional settings were subtracted from the numbers of days supply the patient “*should have received*” in order to take their medication as prescribed.

We found that patients with schizophrenia filled an average of 8.3 antipsychotic prescriptions during FY01, with considerable variation in the number of fills. Approximately 39% of veterans with schizophrenia receiving one type of antipsychotic medication had MPRs below 0.8 in FY01, indicating poor medication adherence. This percentage remains consistent with the rates of poor adherence reported for other samples of patients with schizophrenia. The high prevalence and serious consequences of poor antipsychotic adherence suggest that the VA may need to adopt a systematic approach to improving adherence among these vulnerable patients.

Please note that we do not report MPRs for antipsychotic medications for patients with bipolar disorder because many bipolar patients may require only intermittent rather than continuous antipsychotic medication.

The Pharmacy Benefits Management Strategic Health Group, at Hines VA Medical Center, provided data on all outpatient prescriptions for Registry patients in this report.

All medications in class CN701, "Phenothiazines/related, Antipsychotics" and CN709 ("Antipsychotics, other") were included in the analyses of antipsychotic agents. Atypicals were identified in the prescription data by their generic names: Clozapine, Olanzapine, Quetiapine, Risperidone.

Findings

- The large majority of patients with schizophrenia seen in the VA receive at least one prescription for an antipsychotic medication
- The percentage of veterans with schizophrenia receiving atypical antipsychotics has increased rapidly over the last three years. Currently, 77% of patients with schizophrenia receive atypical antipsychotic medications.
- Olanzapine and risperidone remain the most commonly used atypical antipsychotics but the % of patients receiving quetiapine is increasing rapidly in the VA (from 3.2% to 14.1% between FY99-FY01)
- The mean Medication Possession Ratio (MPR) rose in FY01 (to 81.2%) after being down in FY00.
- Percentage of “very poorly” compliant patients (an MPR of <0.5 and <0.8) continues to significantly decrease.
- Concurrent use of two or more medications continued to increase, both overall (8.7% to 9.6% to 10.5%) and for patients with schizophrenia only (10.6% to 12.1% to 13.7%)
- Clozapine use is increasing slightly among patients with schizophrenia but remains low (at 2.9%)

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